

59915

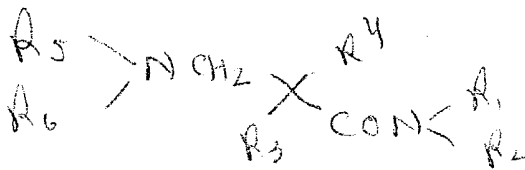
Scientific and Technical Information Center

If more than one search is submitted, please prioritize searches in order of need. *MZ*

Title of Invention: Antagonists of the Magnesium binding defect as therapeutic agents...
Inventors (please provide full names): Tbert Clifton WELLS

Earliest Priority Filing Date: 2/9/2000

****For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.***



Jan Delaval
Reference Librarian
Biotechnology & Chemical Library
CM1 1E07 - 703-308-4498
jan.delaval@uspto.gov



See claims.

Species 1 claim 72

=> fil reg

FILE 'REGISTRY' ENTERED AT 11:34:46 ON 12 FEB 2002
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STRUCTURE FILE UPDATES: 10 FEB 2002 HIGHEST RN 391197-12-9
DICTIONARY FILE UPDATES: 10 FEB 2002 HIGHEST RN 391197-12-9

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

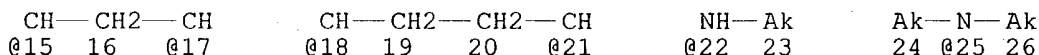
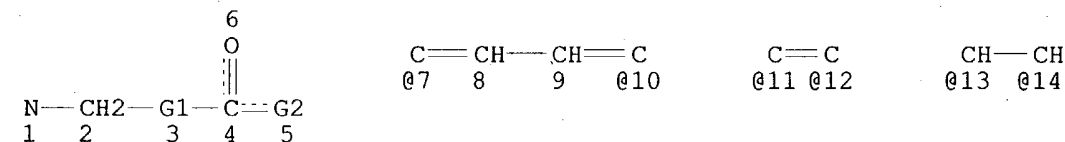
Calculated physical property data is now available. See HELP PROPERTIES
for more information. See STNote 27, Searching Properties in the CAS
Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

The P indicator for Preparations was not generated for all of the
CAS Registry Numbers that were added to the H/Z/CA/CAplus files between
12/27/01 and 1/23/02. Use of the P indicator in online and SDI searches
during this period, either directly appended to a CAS Registry Number
or by qualifying an L-number with /P, may have yielded incomplete results.
As of 1/23/02, the situation has been resolved. Also, note that searches
conducted using the PREP role indicator were not affected.

Customers running searches and/or SDIs in the H/Z/CA/CAplus files
incorporating CAS Registry Numbers with the P indicator between 12/27/01
and 1/23/02, are encouraged to re-run these strategies. Contact the
CAS Help Desk at 1-800-848-6533 in North America or 1-614-447-3698,
worldwide, or send an e-mail to help@cas.org for further assistance or to
receive a credit for any duplicate searches.

=> d sta que 140

L11 STR



VAR G1=7-2 10-4/11-2 12-4/13-2 14-4/15-2 17-4/18-2 21-4

VAR G2=NH2/22/25

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 23

CONNECT IS E1 RC AT 24

CONNECT IS E1 RC AT 26

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 26

STEREO ATTRIBUTES: NONE

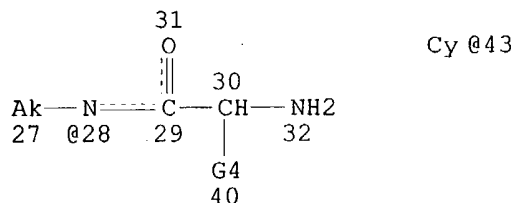
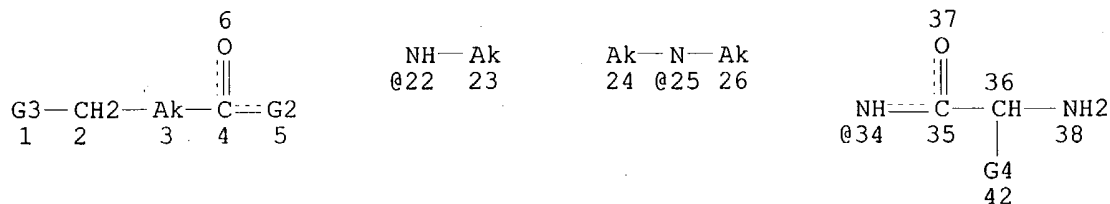
L24 SCR 2016 OR 2026 OR 1997 OR 1841

L27 SCR 2039 OR 2050 OR 2049 OR 2048 OR 2053 OR 2052 OR 2051 O

R 2043 OR 2054

L29 4354 SEA FILE=REGISTRY SSS FUL L11 NOT (L24 OR L27)

L33 STR



VAR G2=NH2/22/25

VAR G3=NH2/22/34/28

VAR G4=AK/43

NODE ATTRIBUTES:

CONNECT IS M1 RC AT 43

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 25

STEREO ATTRIBUTES: NONE

L35 84 SEA FILE=REGISTRY SUB=L29 CSS FUL L33

L36 12 SEA FILE=REGISTRY ABB=ON PLU=ON L35 AND (C6H14N2O OR C5H10N2O)

L37 1 SEA FILE=REGISTRY ABB=ON PLU=ON L36 AND PENTANAMIDE AND AMINOMETHYL

L38 1 SEA FILE=REGISTRY ABB=ON PLU=ON L36 AND PENTANAMIDE AND 5 AMINO 4 METHYL

L39 1 SEA FILE=REGISTRY ABB=ON PLU=ON L36 AND BUTENAMIDE

L40 3 SEA FILE=REGISTRY ABB=ON PLU=ON (L37 OR L38 OR L39)

=> d ide can tot 140

L40 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2002 ACS

RN 214783-27-4 REGISTRY

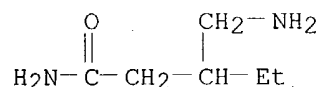
CN Pentanamide, 3-(aminomethyl)- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C6 H14 N2 O

SR CA

LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

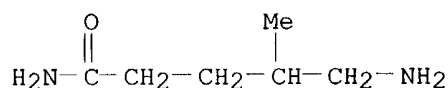
2 REFERENCES IN FILE CA (1967 TO DATE)

2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:102645

REFERENCE 2: 129:316688

L40 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2002 ACS
 RN 214783-26-3 REGISTRY
 CN **Pentanamide, 5-amino-4-methyl- (9CI)** (CA INDEX NAME)
 FS 3D CONCORD
 MF **C6 H14 N2 O**
 SR CA
 LC STN Files: CA, CAPLUS, USPATFULL



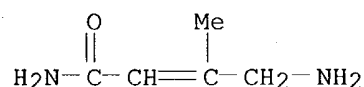
****PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT****

2 REFERENCES IN FILE CA (1967 TO DATE)
 2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:102645

REFERENCE 2: 129:316688

L40 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2002 ACS
 RN 102831-39-0 REGISTRY
 CN **2-Butenamide, 4-amino-3-methyl-, monohydrochloride (9CI)** (CA INDEX NAME)
 MF **C5 H10 N2 O . Cl H**
 SR CA
 LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT
 (*File contains numerically searchable property data)



● HCl

1 REFERENCES IN FILE CA (1967 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 105:60922

=> d his 140-

(FILE 'REGISTRY' ENTERED AT 09:52:55 ON 12 FEB 2002)
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FILE 'HCAOLD' ENTERED AT 11:34:11 ON 12 FEB 2002
 L41 0 S L40

FILE 'HCAPLUS' ENTERED AT 11:34:14 ON 12 FEB 2002
 L42 3 S L40

FILE 'USPATFULL, USPAT2' ENTERED AT 11:34:28 ON 12 FEB 2002

L43 1 S L40

FILE 'REGISTRY' ENTERED AT 11:34:46 ON 12 FEB 2002

=> fil uspatall

FILE 'USPATFULL' ENTERED AT 11:35:22 ON 12 FEB 2002

CA INDEXING COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 11:35:22 ON 12 FEB 2002

CA INDEXING COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

=> d 143 bib abs hitstr

L43 ANSWER 1 OF 1 USPATFULL

AN 1999:81945 USPATFULL

TI Epsilon caprolactam compositions

IN Maher, John Michael, Charleston, WV, United States
Bryant, David Robert, South Charleston, WV, United States
Holladay, Johnathan Eugene, Charleston, WV, United States
Eisenschmid, Thomas Carl, Cross Lanes, WV, United States
Briggs, John Robert, Charleston, WV, United States
Olson, Kurt Damar, Cross Lanes, WV, United States

PA Union Carbide Chemicals & Plastics Technology Corporation, Danbury, CT,
United States (U.S. corporation)

PI US 5925754 19990720

AI US 1997-956745 19971023 (8)

RLI Continuation-in-part of Ser. No. US 1997-839576, filed on 15 Apr 1997
And Ser. No. US 1997-843340, filed on 15 Apr 1997

DT Utility

FS Granted

EXNAM Primary Examiner: Raymond, Richard L.; Assistant Examiner: Kifle, Bruck

LREP Coon, Gerald L.

CLMN Number of Claims: 9

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1451

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to a composition comprising (a) epsilon caprolactam and (b) one or more of 5-[4,5-di(3-carboxypropyl)-2-pyridyl]pentanoic acid or salt or amide, 4-[4,5-di(2-carboxypropyl)-2-pyridyl]-2-methylbutanoic acid or salt or amide, 2-[2-(2-carboxybutyl)-5-(1-carboxypropyl)-4-pyridyl]butanoic acid or salt or amide, 5-[3,5-di(3-carboxypropyl)-2-pyridyl]pentanoic acid or salt or amide, 4-[3,5-di(2-carboxypropyl)-2-pyridyl]-2-methylbutanoic acid or salt or amide, 2-[2-(2-carboxybutyl)-5-(1-carboxypropyl)-3-pyridyl]butanoic acid or salt or amide, 5-amino-4-methylpentanamide, 4-amino-3-ethylbutanamide, 5-[4,5-di(4-hydroxybutyl)-2-pyridyl]pentanol, 4-[4,5-di(2-methoxypropyl)-2-pyridyl]-2-methylbutanol, 2-[2-(2-methoxybutyl)-5-(1-methoxypropyl)-4-pyridyl]butanol, 5-[3,5-di(4-hydroxybutyl)-2-pyridyl]pentanol, 4-[3,5-di(2-methoxypropyl)-2-pyridyl]-2-methylbutanol, 2-[2-(2-methoxybutyl)-5-(1-methoxypropyl)-3-pyridyl]butanol, 5-amino-4-methyl-1-pentanol, 5-imino-2-methyl-1-pentanamine, 5-amino-2-methyl-1-pentanol, 5-imino-4-methyl-1-pentanamine and 2-butyl-4,5-dipropylpyridine, wherein the weight ratio of component (a) to component (b) is at least about 99 to 1. The epsilon caprolactam compositions are useful in the preparation of nylon 6.

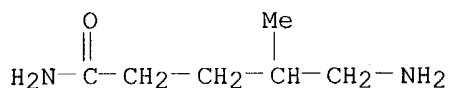
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 214783-26-3P 214783-27-4P

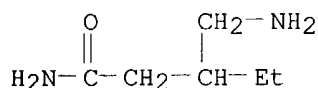
(prodn. of caprolactam comps. contg. different byproducts)

RN 214783-26-3 USPATFULL

CN Pentanamide, 5-amino-4-methyl- (9CI) (CA INDEX NAME)



RN 214783-27-4 USPATFULL
 CN Pentanamide, 3-(aminomethyl)- (9CI) (CA INDEX NAME)



=> fil hcaplus
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FILE COVERS 1907 - 8 Feb 2002 VOL 136 ISS 7
 FILE LAST UPDATED: 30 Jan 2002 (20020130/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

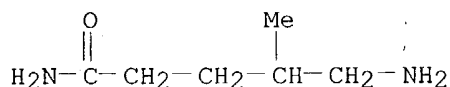
The P indicator for Preparations was not generated for all of the CAS Registry Numbers that were added to the CAS files between 12/27/01 and 1/23/02. As of 1/23/02, the situation has been resolved. Searches and/or SDIs in the H/Z/CA/CAplus files incorporating CAS Registry Numbers with the P indicator executed between 12/27/01 and 1/23/02 may be incomplete. See the NEWS message on this topic for more information.

=> d 142 bib abs hitstr retable tot

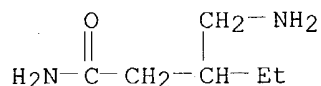
L42 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2002 ACS
 AN 1999:450917 HCAPLUS
 DN 131:102645
 TI Production of caprolactam compositions containing different byproducts for easier separation
 IN Maher, John Michael; Bryant, David Robert; Holladay, Johnathan Eugene; Eisenschmid, Thomas Carl; Briggs, John Robert; Olson, Kurt Damar
 PA Union Carbide Chemicals & Plastics Technology Corporation, USA
 SO U.S., 15 pp.
 CODEN: USXXAM
 DT Patent
 LA English

FAN.CNT 6

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | US 5925754 | A | 19990720 | US 1997-956745 | 19971023 |
| | US 5817883 | A | 19981006 | US 1997-843340 | 19970415 |
| | US 5962680 | A | 19991005 | US 1997-839576 | 19970415 |
| | WO 9846564 | A1 | 19981022 | WO 1998-US7486 | 19980414 |
| | W: BR, CA, CN, JP, KP, KR, MX, PL, RU, SG | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | EP 975590 | A1 | 20000202 | EP 1998-915567 | 19980414 |
| | R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE, PT | | | | |
| | JP 2001521569 | T2 | 20011106 | JP 1998-544206 | 19980414 |
| | BR 9808872 | A | 20011120 | BR 1998-8872 | 19980414 |
| PRAI | US 1997-839576 | A2 | 19970415 | | |
| | US 1997-843340 | A2 | 19970415 | | |
| | US 1997-956745 | A | 19971023 | | |
| | WO 1998-US7486 | W | 19980414 | | |
| AB | Title compns. comprise (a) .epsilon.-caprolactam and (b) one or more of 5-[4,5-di(3-carboxypropyl)-2-pyridyl]pentanoic acid or salt or amide, 4-[4,5-di(2-carboxypropyl)-2-pyridyl]-2-methylbutanoic acid or salt or amide, 2-[2-(2-carboxybutyl)-5-(1-carboxypropyl)-4-pyridyl]butanoic acid or salt or amide, 5-[3,5-di(3-carboxypropyl)-2-pyridyl]pentanoic acid or salt or amide, 4-[3,5-di(2-carboxypropyl)-2-pyridyl]-2-methylbutanoic acid or salt or amide, 2-[2-(2-carboxybutyl)-5-(1-carboxypropyl)-3-pyridyl]butanoic acid or salt or amide, 5-amino-4-methylpentanamide, 4-amino-3-ethylbutanamide, 5-[4,5-di(4-hydroxybutyl)-2-pyridyl]pentanol, 4-[4,5-di(2-methoxypropyl)-2-pyridyl]-2-methylbutanol, 2-[2-(2-methoxybutyl)-5-(1-methoxypropyl)-4-pyridyl]butanol, 5-[3,5-di(4-hydroxybutyl)-2-pyridyl]pentanol, 4-[3,5-di(2-methoxypropyl)-2-pyridyl]-2-methylbutanol, 2-[2-(2-methoxybutyl)-5-(1-methoxypropyl)-3-pyridyl]butanol, 5-amino-4-methyl-1-pentanol, 5-imino-2-methyl-1-pentanamine, 5-amino-2-methyl-1-pentanol, 5-imino-4-methyl-1-pentanamine and 2-butyl-4,5-dipropylpyridine, in a:b wt. ratio at least about 99 to 1. The byproducts result from reductive amination and cyclization of C6 difunctional intermediates produced by carbonylation of butadiene. The .epsilon.-caprolactam compns. are useful in the prepn. of nylon 6. | | | | |
| IT | 214783-26-3P 214783-27-4P | | | | |
| | RL: BYP (Byproduct); PREP (Preparation) | | | | |
| | (prodn. of caprolactam compns. contg. different byproducts) | | | | |
| RN | 214783-26-3 HCAPLUS | | | | |
| CN | Pentanamide, 5-amino-4-methyl- (9CI) (CA INDEX NAME) | | | | |



RN 214783-27-4 HCAPLUS
 CN Pentanamide, 3-(aminomethyl)- (9CI) (CA INDEX NAME)



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Anon | 1971 | | | GB 1254222 | HCAPLUS |
| Anon | 1974 | | | GB 1357735 | HCAPLUS |
| Anon | 1984 | | | RU 1087510 | |
| Anon | 1986 | | | EP 0183545 | HCAPLUS |

| | | | | | |
|-------------|------|-----|-----|----------------------|---------|
| Anon | 1987 | | | EP 0271145 | HCAPLUS |
| Anon | 1988 | | | EP 0273489 | HCAPLUS |
| Anon | 1989 | | | EP 0343819 | HCAPLUS |
| Anon | 1990 | | | EP 0351616 | HCAPLUS |
| Anon | 1990 | | | EP 0405433 | HCAPLUS |
| Anon | 1991 | | | EP 0420510 | HCAPLUS |
| Anon | 1991 | | | EP 0448848 | HCAPLUS |
| Anon | 1991 | | | RU 150453 | |
| Anon | 1992 | | | EP 0511126 | HCAPLUS |
| Anon | 1993 | | | EP 0556681 | HCAPLUS |
| Anon | 1993 | | | EP 0562450 | HCAPLUS |
| Anon | 1993 | | | EP 0577205 | HCAPLUS |
| Anon | 1993 | | | JP 06306012 | HCAPLUS |
| Anon | 1994 | | | EP 0602442 | HCAPLUS |
| Anon | 1994 | | | EP 0643031 | HCAPLUS |
| Anon | 1994 | | | WO 9426688 | HCAPLUS |
| Anon | 1995 | | | EP 0648731 | HCAPLUS |
| Anon | 1995 | | | EP 0662468 | HCAPLUS |
| Anon | 1995 | | | EP 0712828 | HCAPLUS |
| Anon | 1995 | | | WO 9506025 | HCAPLUS |
| Anon | 1995 | | | WO 9506027 | HCAPLUS |
| Anon | 1995 | | | WO 9518089 | HCAPLUS |
| Anon | 1995 | | | WO 9518783 | HCAPLUS |
| Anon | 1995 | | | WO 9530680 | HCAPLUS |
| Anon | 1996 | | | EP 0728732 | HCAPLUS |
| Anon | 1996 | | | EP 0729943 | HCAPLUS |
| Anon | 1996 | | | EP 0729944 | HCAPLUS |
| Anon | 1996 | | | EP 0738701 | HCAPLUS |
| Anon | 1997 | | | EP 0761634 | HCAPLUS |
| Atadan | 1994 | | | US 5292944 | HCAPLUS |
| Bahrman | 1996 | | | US 5583250 | HCAPLUS |
| Bahrman, I | 1980 | 8 | 329 | Journal of Molecular | |
| Bertleff | 1990 | | | US 4910328 | HCAPLUS |
| Bertleff | 1991 | | | US 5003102 | HCAPLUS |
| Bertozzi, S | 1995 | 487 | 41 | Journal of Organomet | HCAPLUS |
| Billig | 1988 | | | US 4769498 | HCAPLUS |
| Botteghi, C | 1980 | 184 | C17 | Journal of Organomet | HCAPLUS |
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| Burke | 1986 | | | US 4622423 | HCAPLUS |
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| Burke | 1993 | | | US 5250726 | HCAPLUS |
| Carlock | 1980 | | | US 4185083 | HCAPLUS |
| Carlock | 1980 | | | US 4189448 | HCAPLUS |
| Carlock | 1980 | | | US 4214109 | HCAPLUS |
| Denis | 1993 | | | US 5198577 | HCAPLUS |
| Denis | 1994 | | | US 5312979 | HCAPLUS |
| Dennis | 1984 | | | US 4482749 | HCAPLUS |
| Dennis | 1986 | | | US 4567306 | HCAPLUS |
| Drent | 1989 | | | US 4824817 | HCAPLUS |
| Drent | 1991 | | | US 5028734 | HCAPLUS |
| D'Amore | 1991 | | | US 5026901 | HCAPLUS |
| Fell | 1995 | | | US 5434312 | HCAPLUS |
| Fell, B | 1975 | 99 | 1 | Chemical-Zeitung | |
| Fell, B | 1977 | 2 | 211 | Journal of Molecular | HCAPLUS |
| Fujita | 1972 | | | US 3652549 | HCAPLUS |
| Henin | 1987 | | | US 4658068 | HCAPLUS |
| Hignett | 1980 | | | US 4200591 | HCAPLUS |
| Hignett | 1980 | | | US 4200592 | HCAPLUS |
| Hoelderich | 1990 | | | US 4933487 | HCAPLUS |
| Hoshiyama | 1984 | | | US 4447661 | HCAPLUS |
| Hutmacher | 1988 | | | US 4730041 | HCAPLUS |
| Hutmacher | 1988 | | | US 4731445 | HCAPLUS |
| Jenck | 1991 | | | US 5041642 | HCAPLUS |
| Johnson | 1972 | | | US 3660493 | HCAPLUS |
| Johnson | 1983 | | | US 4409418 | HCAPLUS |
| Kim | 1980 | | | US 4198352 | HCAPLUS |

| | | | | |
|----------------|------|--------|----------------------|---------|
| Knifton | 1984 | | US 4451679 | HCAPLUS |
| Knifton | 1984 | | US 4469892 | HCAPLUS |
| Kummer | 1976 | | US 3947503 | HCAPLUS |
| Maerkl | 1990 | | US 4894474 | HCAPLUS |
| Maerkl | 1990 | | US 4925972 | HCAPLUS |
| Merger | 1991 | | US 5068398 | HCAPLUS |
| Mullin | 1996 | | US 5504261 | HCAPLUS |
| Naeumann | 1989 | | US 4879405 | HCAPLUS |
| Nienburg | 1978 | | US 4101588 | |
| Ohyama | 1983 | | US 4376212 | HCAPLUS |
| Oswald | 1985 | | US 4528404 | HCAPLUS |
| Packett | 1994 | | US 5312996 | HCAPLUS |
| Panitz | 1992 | | US 5159107 | HCAPLUS |
| Platz | 1985 | | US 4550195 | HCAPLUS |
| Roeper | 1993 | | US 5264616 | HCAPLUS |
| Saito | 1981 | | US 4263449 | HCAPLUS |
| Sato | 1993 | | US 5177228 | HCAPLUS |
| Schneider | 1986 | | US 4586987 | HCAPLUS |
| Schneider | 1989 | | US 4801738 | HCAPLUS |
| Sheehan | 1969 | | US 3485821 | |
| Sielcken | 1996 | | US 5495041 | HCAPLUS |
| Slaugh | 1966 | | US 3239566 | HCAPLUS |
| Smith | 1980 | | US 4224255 | HCAPLUS |
| Vagt | 1988 | | US 4730040 | HCAPLUS |
| Van Leeuwen, P | 1985 | 31 345 | Journal of Molecular | HCAPLUS |
| van Vliet | 1987 | | US 4647707 | HCAPLUS |
| Vargas | 1994 | | US 5306848 | HCAPLUS |
| Yates | 1984 | | US 4443638 | HCAPLUS |
| Young | 1986 | | US 4625068 | HCAPLUS |

L42 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:706201 HCAPLUS

DN 129:316688

TI Epsilon caprolactam compositions and byproducts

IN Maher, John Michael; Bryant, David Robert; Holladay, Johnathan Eugene; Eisenschmid, Thomas Carl; Briggs, John Robert; Olson, Kurt Damar

PA Union Carbide Chemicals & Plastics Technology Corp., USA

SO PCT Int. Appl., 51 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 6

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 9846564 | A1 | 19981022 | WO 1998-US7486 | 19980414 |
| | W: BR, CA, CN, JP, KP, KR, MX, PL, RU, SG | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | US 5817883 | A | 19981006 | US 1997-843340 | 19970415 |
| | US 5962680 | A | 19991005 | US 1997-839576 | 19970415 |
| | US 5925754 | A | 19990720 | US 1997-956745 | 19971023 |
| | EP 975590 | A1 | 20000202 | EP 1998-915567 | 19980414 |
| | R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE, PT | | | | |
| | JP 2001521569 | T2 | 20011106 | JP 1998-544206 | 19980414 |
| | BR 9808872 | A | 20011120 | BR 1998-8872 | 19980414 |
| PRAI | US 1997-839576 | A | 19970415 | | |
| | US 1997-843340 | A | 19970415 | | |
| | US 1997-956745 | A | 19971023 | | |
| | WO 1998-US7486 | W | 19980414 | | |

AB This invention relates to a compn. comprising (a) epsilon caprolactam and (b) one or more of 5-[4,5-di(3-carboxypropyl)-2-pyridyl]pentanoic acid or salt or amide, 4-[4,5-di(2-carboxypropyl)-2-pyridyl]-2-methylbutanoic acid or salt or amide, 2-[2-(2-carboxybutyl)-5-(1-carboxypropyl)-4-pyridyl]butanoic acid or salt or amide, 5-[3,5-di(3-carboxypropyl)-2-pyridyl]pentanoic acid or salt or amide, 4-[3,5-di(2-carboxypropyl)-2-pyridyl]-2-methylbutanoic acid or salt or amide, 2-[2-(2-carboxybutyl)-5-

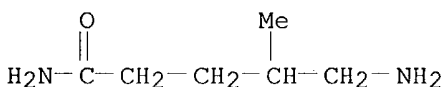
(1-carboxypropyl)-3-pyridyl]butanoic acid or salt or amide, 5-amino-4-methylpentanamide, 4-amino-3-ethylbutanamide, 5-[4,5-di(4-hydroxybutyl)-2-pyridyl]pentanol, 4-[4,5-di(2-methoxypropyl)-2-pyridyl]-2-methylbutanol, 2-[2-(2-methoxybutyl)-5-(1-methoxypropyl)-4-pyridyl]butanol, 5-[3,5-di(4-hydroxybutyl)-2-pyridyl]pentanol, 4-[3,5-di(2-methoxypropyl)-2-pyridyl]-2-methylbutanol, 2[2-(2-methoxybutyl)-5-(1-methoxypropyl)-3-pyridyl]butanol, 5-amino-4-methyl-1-pentanol, 5-imino-2-methyl-1-pentanamine, 5-amino-2-methyl-1-pentanol, 5-imino-4-methyl-1-pentanamine and 2-butyl-4,5-dipropylpyridine, wherein the wt. ratio of component a) to component b) is at least about 99 to 1. The epsilon caprolactam compns. are useful in the prepn. of nylon 6.

IT **214783-26-3P 214783-27-4P**

RL: BYP (Byproduct); PREP (Preparation)
(epsilon caprolactam compns. and byproducts)

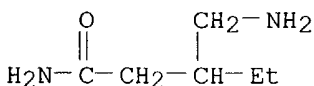
RN 214783-26-3 HCAPLUS

CN Pentanamide, 5-amino-4-methyl- (9CI) (CA INDEX NAME)



RN 214783-27-4 HCAPLUS

CN Pentanamide, 3-(aminomethyl)- (9CI) (CA INDEX NAME)



L42 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2002 ACS

AN 1986:460922 HCAPLUS

DN 105:60922

TI .beta.-Methyleneglutamic acid and .beta.-methyleneglutamine

AU Paik, Yi Hyon; Dowd, Paul

CS Dep. Chem., Univ. Pittsburgh, Pittsburgh, PA, 15260, USA

SO J. Org. Chem. (1986), 51(15), 2910-13

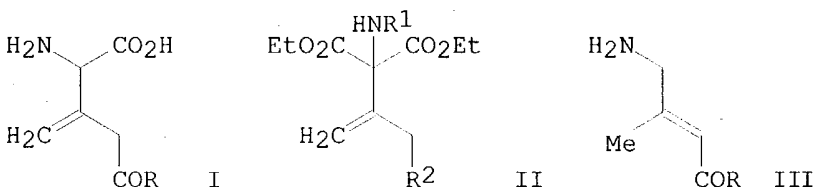
CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

LA English

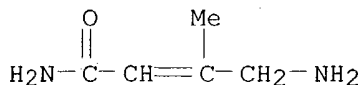
OS CASREACT 105:60922

GI



AB Title compds. DL-I (R = OH and NH₂, resp.) were prepd. from aminomalonates and allenes. Thus, AcNHCH(CO₂Et)₂ was treated with HgC:C:CHCO₂Et in the presence of EtONa to give adduct II (R₁ = Ac, R₂ = CO₂Et), which was hydrolyzed by 20% HCl at 50.degree. to give DL-I.cntdot.HCl (R = OH) and unsatd. acid III.cntdot.HCl (R = OH). Also, BocNHCH(CO₂Et)₂ (Boc = Me₃CO₂C) was treated with H₂C:C:CHCN in the presence of EtONa to give II (R₁ = Boc, R₂ = CN), which was hydrolyzed by 20% HCl at 50.degree. to give DL-I.cntdot.HCl (R = NH₂) and unsatd. amide III (R = NH₂).

IT 102831-39-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 102831-39-0 HCAPLUS
 CN 2-Butenamide, 4-amino-3-methyl-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

=> d his

(FILE 'HOME' ENTERED AT 09:48:46 ON 12 FEB 2002)
 SET COST OFF

FILE 'HCAPLUS' ENTERED AT 09:49:03 ON 12 FEB 2002

L1 E WELLS I/AU
 52 S E3,E4,E14
 E MAGNESIUM/CS, PA
 L2 0 S (MAGNES?(L)DIAG?)/PA,CS
 L3 9 S L1 AND (MAGNESIUM OR MG###)

FILE 'REGISTRY' ENTERED AT 09:51:04 ON 12 FEB 2002

L4 1 S 7439-95-4

FILE 'HCAPLUS' ENTERED AT 09:51:31 ON 12 FEB 2002

L5 2 S L4 AND L1
 L6 9 S L3,L5

FILE 'REGISTRY' ENTERED AT 09:51:56 ON 12 FEB 2002

L7 1 S 22537-22-0
 E MAGNESIUM, ION/CN
 L8 1 S E4

FILE 'HCAPLUS' ENTERED AT 09:52:30 ON 12 FEB 2002

L9 1 S L7,L8 AND L1
 L10 9 S L6,L9

FILE 'REGISTRY' ENTERED AT 09:52:55 ON 12 FEB 2002

L11 STR
 L12 30 S L11
 L13 STR L11
 L14 4 S L13
 L15 SCR 2043 OR 2127
 L16 5 S L13 NOT L15
 L17 SCR 2039 OR 2127 OR 2050 OR 2049 OR 2048 OR 2053 OR 2052 OR 205
 L18 3 S L13 NOT L17
 L19 STR L13,
 L20 3 S L19 NOT L17
 L21 STR L19
 L22 0 S L21 NOT L17 CSS SAM
 L23 17 S L11 NOT L17 SAM
 L24 SCR 2016 OR 2026 OR 1997 OR 1841
 L25 12 S L11 NOT (L17 OR L24)
 L26 0 S L21 NOT (L17 OR L24) CSS SAM
 L27 SCR 2039 OR 2050 OR 2049 OR 2048 OR 2053 OR 2052 OR 2051 OR 204
 L28 14 S L11 NOT (L24 OR L27)
 L29 4354 S L11 NOT (L24 OR L27) FUL

SAV KUMAR635/A L29
L30 0 S L21 CSS SAM SUB=L29
L31 23 S L21 SAM SUB=L29
L32 0 S L21 CSS FUL SUB=L29
L33 STR L19
L34 4 S L33 CSS SAM SUB=L29
L35 84 S L33 CSS FUL SUB=L29
SAV L35 KUMAR635A/A
L36 12 S L35 AND (C6H14N2O OR C5H10N2O)
L37 1 S L36 AND PENTANAMIDE AND AMINOMETHYL
L38 1 S L36 AND PENTANAMIDE AND 5 AMINO 4 METHYL
L39 1 S L36 AND BUTENAMIDE
L40 3 S L37-L39

L41 FILE 'HCAOLD' ENTERED AT 11:34:11 ON 12 FEB 2002
0 S L40

L42 FILE 'HCAPLUS' ENTERED AT 11:34:14 ON 12 FEB 2002
3 S L40

L43 FILE 'USPATFULL, USPAT2' ENTERED AT 11:34:28 ON 12 FEB 2002
1 S L40

=> fil reg

FILE 'REGISTRY' ENTERED AT 12:30:03 ON 12 FEB 2002
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STRUCTURE FILE UPDATES: 10 FEB 2002 HIGHEST RN 391197-12-9
DICTIONARY FILE UPDATES: 10 FEB 2002 HIGHEST RN 391197-12-9

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

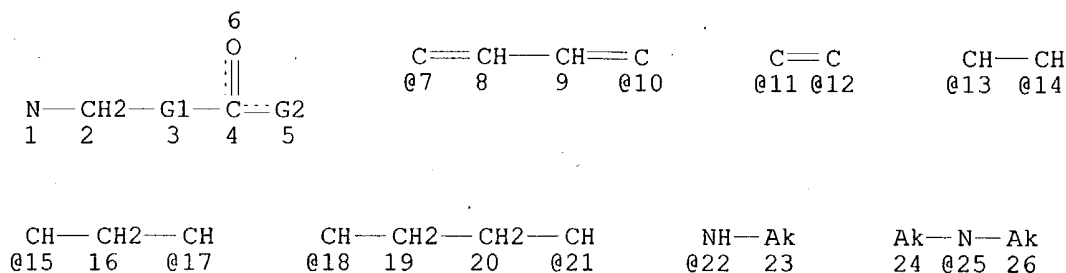
Calculated physical property data is now available. See HELP PROPERTIES
for more information. See STNote 27, Searching Properties in the CAS
Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

The P indicator for Preparations was not generated for all of the
CAS Registry Numbers that were added to the H/Z/CA/CAPLUS files between
12/27/01 and 1/23/02. Use of the P indicator in online and SDI searches
during this period, either directly appended to a CAS Registry Number
or by qualifying an L-number with /P, may have yielded incomplete results.
As of 1/23/02, the situation has been resolved. Also, note that searches
conducted using the PREP role indicator were not affected.

Customers running searches and/or SDIs in the H/Z/CA/CAPLUS files
incorporating CAS Registry Numbers with the P indicator between 12/27/01
and 1/23/02, are encouraged to re-run these strategies. Contact the
CAS Help Desk at 1-800-848-6533 in North America or 1-614-447-3698,
worldwide, or send an e-mail to help@cas.org for further assistance or to
receive a credit for any duplicate searches.

=> d sta que 18

L1 STR



VAR G1=7-2 10-4/11-2 12-4/13-2 14-4/15-2 17-4/18-2 21-4

VAR G2=NH2/22/25

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 23

CONNECT IS E1 RC AT 24

CONNECT IS E1 RC AT 26

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 26

STEREO ATTRIBUTES: NONE

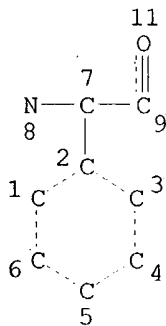
L2 SCR 2016 OR 2026 OR 1997 OR 1841

L3 SCR 2039 OR 2050 OR 2049 OR 2048 OR 2053 OR 2052 OR 2051 O

R 2043 OR 2054

L4 4354 SEA FILE=REGISTRY SSS FUL L1 NOT (L2 OR L3)

L5 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE

L7 17 SEA FILE=REGISTRY SUB=L4 SSS FUL L5

L8 3 SEA FILE=REGISTRY ABB=ON PLU=ON L7 AND NA/ELS

=> d his 18-

(FILE 'REGISTRY' ENTERED AT 12:24:47 ON 12 FEB 2002)

SAV L7 KUMAR635B/A

L8 3 S L7 AND NA/ELS

FILE 'HCAOLD' ENTERED AT 12:29:22 ON 12 FEB 2002

L9 0 S L8

FILE 'HCAPLUS' ENTERED AT 12:29:26 ON 12 FEB 2002

L10 2 S L8

FILE 'USPATFULL, USPAT2' ENTERED AT 12:29:43 ON 12 FEB 2002

L11 0 S L8

FILE 'REGISTRY' ENTERED AT 12:30:03 ON 12 FEB 2002

=> d ide can tot l8

L8 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2002 ACS

RN 61544-14-7 REGISTRY

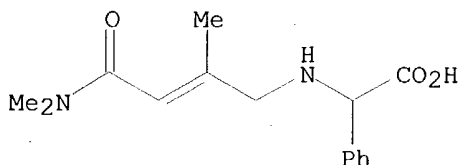
CN Benzeneacetic acid, .alpha.-[[4-(dimethylamino)-2-methyl-4-oxo-2-butenyl]amino]-, monosodium salt (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Benzeneacetic acid, .alpha.-[[4-(dimethylamino)-2-methyl-4-oxo-2-butenyl]amino]-, monosodium salt, (.+-.)-

MF C15 H20 N2 O3 . Na

LC STN Files: CA, CAPLUS



● Na

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 86:55412

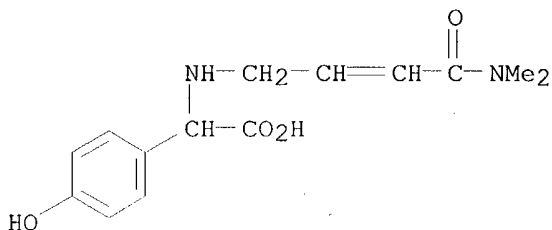
L8 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2002 ACS

RN 50971-89-6 REGISTRY

CN Benzeneacetic acid, .alpha.-[[4-(dimethylamino)-4-oxo-2-butenyl]amino]-4-hydroxy-, monosodium salt (9CI) (CA INDEX NAME)

MF C14 H18 N2 O4 . Na

LC STN Files: CA, CAPLUS



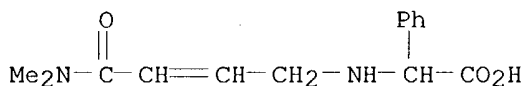
● Na

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 80:14945

L8 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2002 ACS
RN 50971-87-4 REGISTRY
CN Benzeneacetic acid, .alpha.-[[4-(dimethylamino)-4-oxo-2-butenyl]amino]-,
monosodium salt (9CI) (CA INDEX NAME)
MF C14 H18 N2 O3 . Na
LC STN Files: CA, CAPLUS



● Na

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 80:14945

=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 12:30:17 ON 12 FEB 2002
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FILE COVERS 1907 - 8 Feb 2002 VOL 136 ISS 7
FILE LAST UPDATED: 30 Jan 2002 (20020130/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

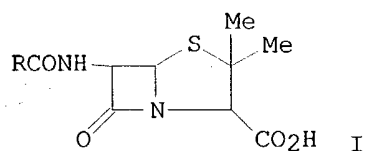
The P indicator for Preparations was not generated for all of the CAS Registry Numbers that were added to the CAS files between 12/27/01 and 1/23/02. As of 1/23/02, the situation has been resolved. Searches and/or SDIs in the H/Z/CA/CAPLUS files incorporating CAS Registry Numbers with the P indicator executed between 12/27/01 and 1/23/02 may be incomplete. See the NEWS message on this topic for more information.

=> d bib abs hitstr retable tot 110

L10 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2002 ACS
AN 1977:55412 HCAPLUS
DN 86:55412
TI DL-6-Aminoacylamidopenicillanic acids

PA Osaka University, Japan
 SO Ger. Offen., 24 pp. Division of Ger. Offen. 2,020,133.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | DE 2065879 | A1 | 19760826 | DE 1970-2065879 | 19700424 |
| | NL 7005611 | A | 19701103 | NL 1970-5611 | 19700417 |
| | DK 132026 | B | 19751013 | DK 1970-2079 | 19700423 |
| | ES 379011 | A1 | 19720801 | ES 1970-379011 | 19700424 |
| | FR 2040451 | A5 | 19710122 | FR 1970-15647 | 19700429 |
| | NL 7402745 | A | 19740527 | NL 1974-2745 | 19740228 |
| | NL 164020 | B | 19800616 | | |
| | NL 164020 | C | 19801117 | | |
| PRAI | JP 1969-33867 | | 19690430 | | |
| GI | | | | | |



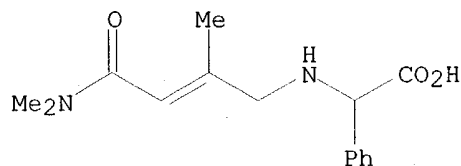
AB 6-(Aminoacylamido)penicillanic acid [I; R = PhCH(NH₂), .alpha.-amino-2-thenyl, (MeS)CH₂CH₂CH(NH₂), 1-aminocyclohexyl] are prepd. by reaction of 6-aminopenicillanic acid (II) with amino acid derivs., protected on the N with a .beta.-keto acid deriv. Thus, aminobenzylpenicillin [I; R = PhCH(NH₂)] is obtained in 60% yield by condensation of II with the mixed anhydride from pivalic acid and [[1-methyl-2-(morpholinocarbonyl)vinyl]amino]phenylacetic acid.

IT 61544-14-7

RL: RCT (Reactant)
 (acylation by, of 6-aminopenicillanic acid)

RN 61544-14-7 HCAPLUS

CN Benzeneacetic acid, .alpha.-[[4-(dimethylamino)-2-methyl-4-oxo-2-butenyl]amino]-, monosodium salt (9CI) (CA INDEX NAME)



● Na

L10 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2002 ACS

AN 1974:14945 HCAPLUS

DN 80:14945

TI Cephalosporins

IN Ishimaru, Toshiyasu; Kodama, Yutaka

PA Toyoma Chemical Co., Ltd.

SO Fr. Demande, 12 pp.

CODEN: FRXXBL

DT Patent

LA French

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|------------|------|----------|-----------------|----------|
| PI | FR 2166316 | A1 | 19730817 | FR 1972-514 | 19720107 |
| | FR 2166316 | B1 | 19771028 | | |

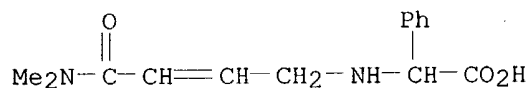
GI For diagram(s), see printed CA Issue.

AB Cephalosporins I (R = 2-thienylacetyl, PhCH(NH₂)CO, p-HOC₆H₄CH(NH₂)CO; R₁ = OAc, OMe, H) were prepd. by acylating I (R = H) in the presence of methoxysilyl chloride R₂(MeO)₂SiCl (R₂ = Me, MeO), or R₃(MeO)SiCl₂ (R₃ = Me, Ph, MeO). Thus I (R = H, R₁ = OAc) was treated with Me-(MeO)₂SiCl, followed by 2-thienylacetyl chloride and HCl to give 86% I (R = 2-thienylacetyl, R₁ = OAc) as its Na salt.

IT 50971-87-4 50971-89-6
 RL: RCT (Reactant)
 (acylation of cephalosporins by)

RN 50971-87-4 HCAPLUS

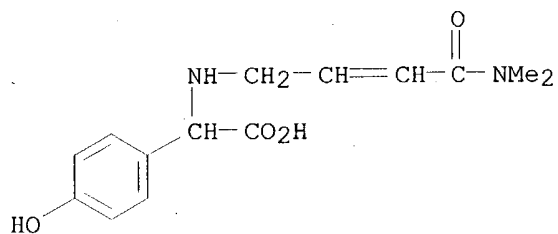
CN Benzeneacetic acid, .alpha.-[[4-(dimethylamino)-4-oxo-2-butenyl]amino]-, monosodium salt (9CI) (CA INDEX NAME)



● Na

RN 50971-89-6 HCAPLUS

CN Benzeneacetic acid, .alpha.-[[4-(dimethylamino)-4-oxo-2-butenyl]amino]-4-hydroxy-, monosodium salt (9CI) (CA INDEX NAME)



● Na